

Loop city, a more sustainable urban form:

Case of Strategic Master Plan of Doumen District, Zhuhai City, China

Since the “Beijing Declaration on Sustainable Development” was released in the seventh ASEM (Asia-Europe Meeting) in 2008, the Chinese government has become more and more involved in the promotion of sustainable development. In terms of urban planning, the New-type Urbanization Plan (NUP) was launched in March 2014, as a national plan proposed for a scientific and reasonable urban development model by 2020. In this context, some local governments began to change their planning approach and seek for a more sustainable way of urban development.

The Strategic Master Plan of Doumen District of Zhuhai City is an outcome of the cooperative efforts between the municipal government of Zhuhai and the urban planners of IFADUR (Franco-chinois d’Architecture et de Développement Durable Urbain et Rural). In this master plan, “loop city” was proposed as a more sustainable urban form for this area.

This concept stemmed from the ten principles of sustainable city advanced by IFADUR: 1) introspect the future, 2) Coproduce, interpenetrate territories, 3) Build a city from its network of public transport, 4) Build and focus on transfer nodes and connection hubs, 5) Develop urban porosity and percolation territory, 6) Promote the proximity and the diversity, 7) Encourage energy self-sufficiency, 8) Manage the resilience of water, 9) Reinforce the urban sense through “actes fondateur” and 10) Give an identity to neighborhoods.

Based on a diagnostic analysis of Doumen, we proposed the “loop city” as a structural answer to a more sustainable urban form for its future. Compared to the “linear city” advanced by Arturo Soria and Gilles Gauthier, the advantage of the loop city lies in its principle of equality in terms of spatial pattern along the loop. Moreover, the loop shape provides the center as a reserved area of future possibilities.

From this point of view, we proposed to plan the loops of Doumen around the central mountain massif, to form a series of rings with high density of structuring networks. These rings, or loops, adapt to the peculiarities of existing sites and facilities. By concentrating public transport along the loops, they will foster the attractiveness of the periphery that they serve, as well as natural space in their centers.